

CLAIMS

What is claimed is:

Sub B<sup>1</sup>  
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1. Apparatus for processing an elastomeric article, comprising:  
an enclosure having a gas-filled interior;  
a support that supports the elastomeric article within the enclosure at an article support location;  
a source of a gaseous cleaning agent operable to introduce a gaseous flow of the gaseous cleaning agent into the interior of the enclosure to flow past the article support location and to contact the elastomeric article, the cleaning agent being operable to dislodge a particulate contaminant from the elastomeric article and entrain the particulate contaminant in the gaseous flow as it passes by the elastomeric article; and  
an exhaust port positioned to receive the gaseous flow after it has passed by the elastomeric article.

2. The apparatus of claim 1, further including  
a particle counter that measures particles in the gaseous flow after it has passed by the elastomeric article.

3. The apparatus of claim 1, wherein the support comprises  
a form that receives the elastomeric article thereon, and  
a source of gaseous pressure to inflate the elastomeric article on the form.

19 4. The apparatus of claim 2, wherein the source of gaseous pressure is a pulsing source of gaseous pressure.

Sub B<sup>2</sup>

5. The apparatus of claim 1, wherein the elastomeric article is a glove, and the support comprises  
a rest upon which a person wearing the glove rests the arm so that the glove is

Sub B<sup>2</sup> positioned at the article support location.

4 ~~5~~ The apparatus of claim 1, further including an elastomeric article in the form of a glove.

5 ~~10~~ The apparatus of claim 1, wherein the source of the gaseous cleaning agent comprises:

a source of a vaporized cleaning material, and

a weakly ionized plasma source disposed within the interior of the enclosure and proximate to the article support location to create a weakly ionized plasma in the ambient atmosphere adjacent to the article support location.

6 ~~7~~ 5 ~~10~~ The apparatus of claim 1, wherein the cleaning material comprises a material selected from the group consisting of ethylenediaminetetraacetate, isopropyl alcohol, oxalic acid, and hydrogen peroxide.

7 ~~8~~ The apparatus of claim 1, further including a microorganism sterilizer disposed within the interior of the enclosure and proximate to the article support location.

Sub C<sup>1</sup> 10. Apparatus for processing an elastomeric article, comprising:  
an enclosure having a gas-filled interior;  
a support that supports the elastomeric article within the enclosure at an article support location;  
a source of a gaseous cleaning agent operable to introduce a gaseous flow of the gaseous cleaning agent into the interior of the enclosure to flow past the article support location and to contact the elastomeric article, the cleaning agent being operable to dislodge a particulate contaminant from the elastomeric article and entrain the particulate contaminant in the gaseous flow as it passes by the elastomeric article, wherein the source of the gaseous cleaning agent comprises

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a nebulizer source of a vaporized cleaning material, and  
a weakly ionized plasma source disposed within the interior of the enclosure and proximate to the article support location to create a weakly ionized plasma in the ambient atmosphere adjacent to the article support location;  
an exhaust port positioned to receive the gaseous flow after it has passed by the elastomeric article; and  
a particle counter that monitors the particles in the gaseous flow after it has passed by the elastomeric article.

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*Sub C2*

11. The apparatus of claim 10, wherein the article support comprises a form that receives the elastomeric article thereon, and a source of gaseous pressure to inflate the elastomeric article on the form.

12. The apparatus of claim 11, wherein the source of gaseous pressure is a pulsing source of gaseous pressure.

13. The apparatus of claim 10, further including an elastomeric article in the form of a glove.

*11 12*

*8 9*

14. The apparatus of claim 10, wherein the cleaning material comprises a material selected from the group consisting of ethylenediaminetetraacetate, isopropyl alcohol, oxalic acid, and hydrogen peroxide.

*12 13*

*8 9*

15. The apparatus of claim 10, further including a microorganism sterilizer disposed within the interior of the enclosure and proximate to the article support location.

*13*

16. Apparatus for processing an elastomeric article, comprising:  
an enclosure having a gas-filled interior;  
a support that receives the elastomeric article thereon and supports the

elastomeric article within the enclosure at an article support location, wherein the article support comprises

a form that receives the elastomeric article thereon, and

a source of pulsing gaseous pressure to inflate the elastomeric article on the form;

a source of a gaseous cleaning agent operable to introduce a gaseous flow of the gaseous cleaning agent into the interior of the enclosure to contact the elastomeric article, the cleaning agent being operable to dislodge a particulate contaminant from the elastomeric article and entrain the particulate contaminant in the gaseous flow as it passes by the elastomeric article, wherein the source of the gaseous cleaning agent comprises

a nebulizer source of a vaporized cleaning material, and

a weakly ionized plasma source disposed within the interior of the enclosure and proximate to the article support location to create a weakly ionized plasma in the ambient atmosphere adjacent to the article support location;

an exhaust port positioned to receive the gaseous flow after it has passed by the elastomeric article; and

a particle counter that monitors the particles in the gaseous flow after it has passed through the exhaust port.

14. ~~15~~ The apparatus of claim 16, further including  
an elastomeric article in the form of a glove.

15. ~~16~~ The apparatus of claim 16, wherein the cleaning material comprises a material selected from the group consisting of ethylenediaminetetraacetate, isopropyl alcohol, oxalic acid, and hydrogen peroxide.

16. ~~17~~ The apparatus of claim 16, further including  
a microorganism sterilizer disposed within the interior of the enclosure and proximate to the article support location.

20. A method for processing an elastomeric article, comprising the step of passing a gaseous flow of a gaseous cleaning agent to contact the elastomeric article positioned at an article support location, the cleaning agent being operable to dislodge a particulate contaminant from the elastomeric article and entrain the particulate contaminant in the gaseous flow as it passes by the elastomeric article, wherein the source of the gaseous cleaning agent comprises

a nebulizer source of a vaporized cleaning material, and

a weakly ionized plasma source disposed within the interior of the enclosure and proximate to the article support location to create a weakly ionized plasma in the ambient atmosphere adjacent to the article support location; and

measuring the particulate content of the gaseous flow after it has passed by the elastomeric article.

18 21. The method of claim 20, including an additional step, after the step of measuring, of

17 correlating the measured particulate content with another quantity.

Add B<sup>3</sup>